ABSTRACT

A system for reducing the forward motion of a vehicle occupant is provided. The system includes a contact surface, a fixed energy absorption device, a deployable energy device, and an energy absorption modifier. The contact surface interacts with a vehicle occupant. The fixed energy absorption device is attached to a structural member of the vehicle. The deployable energy device is in contact with the contact surface and the fixed energy absorption device. The energy absorption modifier is in communication with the fixed energy absorption device for varying the energy absorption characteristics of the fixed energy absorption device.